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REPORT OF SECRETARY OF STATE.

Office Secretary of State,
Raleigh, Nov. 16, 1869.

His Excellency W. W. Holden,
Governor of North Carolina:

Sir:—In compliance with the constitutional provisions, I have the honor to submit to your Excellency and the General Assembly of the State the annual report of this Department for the year ending October 31st, 1869:

THE ARCHIVES OF THE STATE.

Under the operations of the "act concerning the powers and duties of State officers," ratified on the 12th day of April, 1869, I have been enabled to do much towards re-filing and placing in systematic order the records and papers of the State, which, through the changes incident to the late war, had become greatly neglected and disordered.

ENTRIES AND GRANTS.

Three hundred and sixty-one grants were issued upon entries of public lands during the year, embracing an aggregate of

86,878 acres. This subject is one of great importance to the progressive interests of the State, and demanding the early attention of the General Assembly. Under existing laws there is no record in this office of the vacant lands still owned by the State, subject to entry. The greatest possible facilities should be offered by the State to citizens and immigrants in the obtaining of farms and homesteads; yet, under present circumstances, no information relative to the extent or location of public lands can be obtained at the capital. Circumstantial evidence only of the State's titles exists in the various County seats. This state of our public lands, and the want of proper registration, acts most disastrously to the interests of the State. Immigrants and capitalists desirous of investing their means in North Carolina, naturally look to this office for authoritative and reliable information. The uncertainty of the State's title to certain lands impairs the confidence which would otherwise be had in the titles of all lands, and acts as a serious obstacle in the division of the large landed estates, made necessary by the altered relations between capital and labor.

In this connection I would again call attention to the suggestion contained in my report of last year, relative to a proper geographical survey of the State. The several Counties being once properly surveyed, the extent and location of lands subject to entry could be easily ascertained by the County officers, and could then be registered in this office.

STATIONERY.

Under the laws, in force and operative until very recently, there was no limit to the amount or kind of Stationery which might be required and consumed by any of the officers entitled to the same, nor was there any authority under which the Secretary of State could refuse to furnish supplies in any quantity, no matter how extravagant and exorbitant he might deem the same. That this irregularity in supplying stationery

acted to the detriment of the State and the serious annoyance of the issuing officer, has been fully alluded to and explained in previous reports.

Under the act of April 12th, 1869, the supply of stationery is limited and a proper mode of purchasing and issuing prescribed, which I have no doubt will save the State many thousands of dollars.

STATISTICS.

The provision of the Constitution that "there shall be established in the office of the Secretary of State a Bureau of Statistics, Agriculture and Immigration," remains as yet, a dead letter. Under the great press of important subjects, which necessarily engaged the attention of the General Assembly at its last session, this subject did not come before it in any definite shape until toward the close of the session, and then too late for final and deliberative action. I would earnestly recommend that the bills, reported by the several Committees of the Legislature, be taken up at an early date.

At no time in the history of the State was the importance of a reliable statistical information more apparent, both as a guide to proper legislative action and as a means of diffusing information concerning the State, her resources, people, climate, etc.

AGRICULTURE.

Much can be done for encouraging agriculture and its collateral pursuits by a judicious organization of this department in the State government, although the Bureau is as yet unorganized, I have assumed the place myself in communication with the Department of Agriculture of the general government, and have, through its liberality, been enabled to distribute a large variety of seeds and agricultural publications. In all parts of the State there has been an awakening of enthu-

siasm for agricultural pursuits during the year, several District and County Fairs have been held, and the State Fair held at Raleigh in the month of October, (the first since the close of the civil war,) was an evidence that agriculturalists are realizing the new channels opened to them by the changed condition of labor and are ready and anxious to enter into competition with those of our sister States, who have enjoyed similar advantages for nearly a century.

I invite especial attention to the address submitted herewith, delivered before the State Agricultural Society at their Annual Fair, by the distinguished State Geologist, Professor W. C. Kerr, as reflecting in a very truthful way the present condition of agriculture in North Carolina, and the demands for its development.

IMMIGRATION.

Owing to the enterprise and energy evinced by a number of associations, organized in this and other States during the year a large number of farmers, mechanics and men of means have recently settled in the State. To obtain this class of immigrants, artisans and men with sufficient means to purchase a home, should be the great object of the Bureau of Immigration. It is but a repetition of an oft told truth to say that the resources and great wealth of North Carolina need but to be properly known to induce a tide of immigration to her soil. The utmost ignorance and erroneous impressions prevail in this respect among many people of the North and of Europe. To dispel these delusions by the promulgation of pamphlets, circulars, &c., should be one of the duties of the Immigration Department. I would respectfully ask an appropriation sufficient to cover expense of publishing and distributing, from time to time, such information as may be deemed of interest to that class of immigrants above alluded to.

A highly important and respectable opposition to any State aid to immigration has made itself manifest in various parts of

the State. It has been said that owing to the unsettled state of our affairs consequent upon the abolition of slavery, the new comers would exert a detrimental influence, and crowd the abundant unemployed labor within our State. In answer to these objections, I may be pardoned in calling attention to a few facts. The labor which remains as yet unemployed, or only partially so, in the State may be safely assumed to be *raw labor*, or of that kind which requires but little intelligence. The intelligent labor of the State is as fully engaged as that of any of the States of the West. These States are daily becoming more wealthy and her people more affluent under a continued tide of immigration. The immigrant will not go to a country which has no demand for his labor. The resources and requirements of North Carolina will control the *kind* of immigrants which will come to her. Raw labor *will not come* until that already in the State is profitably employed. In support of the unfailing advantages of immigration, I invite a study of the following statistics:

In 1856, every immigrant arriving at the port of New York was questioned as to the amount of money he had with him, and the average of 142,342 new comers, was found to be $68.08. It being ascertained that in many cases the full amount was not stated, this means of obtaining information was abandoned. It was shown, however, that on an average, *they possessed a larger sum than is held by the localized residents of any known community.*

It is estimated that the German emigrants alone brought into this country annually an average of about $11,000,000. Each one has clothing, tools, and valuables, also, the value of which, with his cash capital, amounts to $150, (a low estimate.) so, as 250,000 emigrants arrived in New York in 1859, the national wealth was augmented that year by $37,500,000. An emigrant is worth just as much to this country as it costs to produce a native-born laborer of the same average ability; but the net product of his labor, by which the country of his adoption grows and flourishes, varies according to his intel-

lectual capacity, hereditary disposition, and national qualities. It is calculated that an American farmer or skilled laborer costs $1,500 for the first fifteen years of his life, or until he becomes self-supporting, and a female $750. One-fifth of the emigrants are less than fifteen years old; but then there are more men coming over than women, and very many are of the higher order of skilled labor, the education of whom costs here five times $1,500. Taking them, however, to be half male and half female, each one will be worth $1,125 to this country, which it gains free of expense.

The number of emigrants who, from May 5, 1847, to January 1, 1859, arrived at the port of New York was 4,038,991, which number represents a capital value of $1,125, and a cash value of $150, being $1,275 in all per head, or a total increase to the national wealth of $5,149,713,525. Assuming the immigration into the whole Union to be 300,000 souls per year, the country gains $382,500,000 per year, or more than $1,000,000 per day.

I have the honor to be,

Very respectfully,

Your obedient servant,

HENRY J. MENNINGER.

Secretary of State.

ADDRESS OF PROF. W. C. KERR, DELIVERED BEFORE THE STATE AGRICULTURAL SOCIETY, NOVEMBER 22, 1869.

Gentlemen, Members of the Agricultural Society, and Farmers of North Carolina:

I have thrown together hastily and rudely some thoughts on the subject of Agriculture in North Carolina. I could not, without neglect of my special work, which is pressing at this season of the year, take the time for preparation which the subject and the occasion would so amply justify. And therefore, for the short comings of this address, I must beg your patience for the length of it, your toleration for the unpolished manner of it, and your forbearance for anything which may appear to you ill-considered.

It would be easy to give you a discourse on the science of agriculture in general, or on the state, history and progress of agriculture as an art. But my purpose is more practical.

The two paramount interests of North Carolina, at present, are, unquestionably, education and agriculture. And these two are also intimately and inseparably connected. They demand, as well of the patriotic citizen, as of the legislator, the most anxious attention and the profoundest study.

We are to consider the latter to-day.

The cultivation of the soil, agriculture in some of its departments, has always been, and must ever continue, the occupation of much the larger part of mankind; because all human subsistence must come directly or indirectly out of the earth.

In a few of the nations of Europe, and in one or two States of the Union, manufactures have come to occupy the chief place, while agriculture has sunk to a subordinate position.

But that can never happen here. Situated on the isothermal zone of 60, along which have clustered the dominant populations of the world in all ages, blest with a soil and climate admirably adapted to the most varied, abundant and valuable products required by civilized men, near to one of the finest and most capacious harbors to be found on any shore, and within easy reach of the great marts and highways of the world's commerce, North Carolina is and must remain chiefly an agricultural State.

It is not meant, by any means, to depreciate our mineral and manufacturing resources, which are certainly very important, and destined to an early, rapid and high development; but any one who will take the trouble to examine the census returns will see that the agricultural products of some single counties exceed in value the results of the mining operations of the whole State; and a somewhat similar remark is applicable to our manufactures. The development which these important industries are soon to receive, when our vast stores of mineral wealth shall be unlocked by the hand of science, aided by capital, and when the almost unlimited water power of the middle and western regions of the State shall be utilized, although vastly important in itself, to the precise amount of the increment which it will add to the aggregate wealth and productive capital of the State, will derive its highest value from the impetus which it will give to agriculture, by the removal of the burden of transportation, and the establishment of a market at its door, as well as by the variation and multiplication of the demand for its products.

It being settled then that North Carolina is, and is to be an agricultural State, so predominantly that no other interest is worthy of mention in comparison, what and where is her agriculture?

Every one of us realizes that North Carolina does not occupy the position in this regard which she might, and should, and *must*. Every one admits the defects of our agriculture, great and palpable and glaring. All the newspapers and journals,

and every body you meet are saying, the old way will not do now, we must turn over a new leaf, we must diversify our agriculture, must buy more manure, must cultivate less land, and do it better—must do this and do that; every body preaching, but who is practising? Every one is prescribing for the patient, but the patient does not improve, for all the doctors. I certainly thought, after hearing and reading so much sound talk, surely we are a converted people; converted from the error of our way, and entering already upon the new path to prosperity and wealth. But, alas! here, as too often, in higher matters, the faith begets no work; men imitate the example of those who are not commended to our imitation—those who believe and tremble, but do not mend their ways. Multitudes believe and acknowledge that the old system will bring them and the State to ruin, and they tremble at the prospect, but what are they doing about it? In my recent tourings through more than a score of Counties, in the eastern, middle and subwestern sections of the State, (from which I have just returned) I have taken careful note in this direction, and I must say to you frankly that I scarcely see "the shadow of a turning," can not discern the first gray streak of the promised dawn, do not find a symptom of the needful reforms, almost nowhere the introduction of superior modern agricultural implements, nowhere the cultivation of less surface and better tillage, none of the changes and improvements of which every body acknowledges the necessity. So we come back to that wisdom which cries aloud from the corners of the streets and from the highways of human experience, that good resolutions are not reform, that amendment involves something more than the consciousness of error, and that the knowledge of duty only aggravates the misery as well as the condemnation of those who do it not.

My friends, farmers, North Carolinians, I propose to speak to you plainly to-day. I shall not do any whitewashing. That is not in my line. I take it for granted you wish me to tell you the truth. But if you don't, I mean to do it any way.

It is too much our custom, on such occasions as this, to please ourselves with self-gratulatory speeches and boastings about the immense resources of North Carolina, agricultural, mineral, manufacturing, as if the very presence and abundance of these were not a shame to us rather. The red Indian had as much right to boast of these things as we, and they did him about as much good. Pearls scattered all abroad under our feet, and we too ignorant, or too indolent to stoop and gather them! It is matter of reproach instead of glorification. The path to improvement does not lie that way. It is through humiliation, rather. I shall regard this as a sort of preliminary, confessional meeting, preparatory to our amendment.

Confession you know, is good for the soul—good for the individual soul, and good for our collective North Carolina, agricultural soul here to-day. But let it be understood that it is not to go abroad, what I am about to say. "Tell it not in Gath; publish it not in the streets of Askalon, lest the daughters of the Philistines rejoice." These ubiquitous, tell-tale newspaper men are not to say a word; and if there are any outsiders that don't belong to the family—any Virginians or South Carolinians, I am sure they would'nt lisp it; but if they should be so disposed, I give them a good reason for their reticence. In my frequent preriginations I have sometimes looked over the border, North and South, and let me tell you, you are "in the same condemnation," perhaps "more so."

But let us return to the confession. I say, that as to all these changes and betterments in our agriculture, so abundantly preached, but so scantily practiced, that after an extended and microscopic observation, I do not see it, cannot find it, with a very, very few, very honorable exceptions, (*rari nantes*,) which I should be happy to individualize and to signalize. Our people have, as a general thing, returned to their idols which they worship with the old exclusiveness and in the old fashion. One has recrowned the dethroned monarch of the southern fields, and seeks, with his old devotion, wealth from the flowing whiteness of the boll. Another has waded

again into tar, pitch and turpentine, until you can almost light him with a lucifer match. A third has gone again after the tobacco worm until you would imagine he looks a semi-translucent green, and his "feelers" "black," but not "comely." And still another ardently affects the high and ancient chymic art of distillation, notwithstanding the mountainous difficulties in the way of taxation and the merciless persecutions of the United States Collector. But more and worse, there are many people who are still whining over the past, without philosophy enough to accept the inevitable, and "act in the living present," with a heart for any fate, lying supinely on their backs, waiting for the Rail Road to come and save them, although they have nothing but their own useless bulk to freight it withal, and are not planting a single fruit tree, or grape vine, or sowing an acre of grass, or trying to improve their stock, or their soil, to be ready for its advent, supposing a Rail Road to be an invention for dumping greenbacks at people's doors; or waiting for immigration to come and save them, although they have no idea of reducing their acreage by selling a part of the surplus, or of selling the whole for any thing less than the highest figure (*in gold*) ever thought of *before the war;* waiting, some of them, for *lespedeza*, (or Providence in some guise,) to come and save them, to fertilize their fields and fatten their cattle, and avert starvation from their doors. I meet this kind of people in every part of the State; you have no idea of the number of them.

And people are everywhere and continually excusing all sorts of delinquencies and short comings in the conduct of the farm, and the housekeeping and every thing else, by saying, "we have no negroes now," and "the negroes won't work," and all that sort of stuff; when the difficulty generally is, in such cases, that *white folks* won't work. And some again, in disgust and disappointment, attempt to shirk altogether the responsibilities of the management of their farms, either abandoning them utterly to go to wreck and waste, or more commonly allowing their former slaves or others, to squat upon their

lands and make what they can or will, and then complaining that they do not get the promised rents, or perhaps any rents at all; having expected, most unreasonably, to find the negroes exhibit the high qualities of foresight, judgment and thrift, in which they not only have never had any training, but of which they have never even seen any respectable example. You will admit that this is utterly an error, a very unwise procedure. And all of us have seen many examples of the like, and perhaps of some of you it may be added, *et quorum pars fuisti*, which is, being liberally interpreted, "thou art the man."

But I return to inquire what and where is North Carolina agriculture? Evidently, from this showing, very nearly where it was four years ago, (certainly as to its principles and methods, if not altogether as to results); and that is pretty nearly nowhere. Considered comparatively, we are to-day where Europe was 300 years ago; with an immense area of impoverished soil, its surface stripped of its food producing properties by a long course of injudicious, wasteful, ruinou culture, supposed to be a short cut to fortune, but in the result, a short cut to ruin instead, and poverty. "The fathers have eaten sour grapes, and the children's teeth are set on edge;" and the children are revenging themselves upon the grandchildren by adopting a similar bill of fare. Compared with agriculture in Europe to-day, ours is immeasurably inferior, not worthy to be mentioned at all. In fact, it is vastly inferior both in methods and results, scientifically and practically, to that of the Romans 2,000 years ago. Our agriculture would not support a tithe of the population which flourished upon their soil "in the grand old days of yore." They plowed twice as deep and twice as well as we do, understood and practiced manuring with green crops and guano better than any farmer in North Carolina to day; and the best farmer in the State might learn a hundred things from their agricultural writers, Columella, Cato and the rest. And if we look to other parts of our own country, we shall not find much comfort; for they, too, have left us far in the rear, in the noble

race of agricultural improvement. Placed alongside of New Jersey or Massachusetts, what figure should we make? Can any of you give a good reason other than our shamefully inferior tillage, why the latter state, with but 25 per cent. more of population, (and three-fourths of them engaged in manufacture,) should create annually nearly as much money's worth of *agricultural* products as North Carolina, with seven times the territory, a soil more than twice as generous, and a climate incomparably superior? And yet such is the edifying but mortifying fact. I should not like to acknowledge that in Massachusetts. But worse than all, even the Asiatics are ahead of us. The agriculture of Hindoostan, China and Japan is superior to ours. These half-civilized people, (as they used to be classified in the geographies,) who, we are accustomed to think, ought to be thankful to us for our pity, understand and practice much better than we the tillage and improvement of the soil, the application of manures and the rotation of crops—in a word, all the arts and parts of agriculture, and produce far better results with the same means than the best farmers of North Carolina can do to day. Yes, we must acknowledge it, those miserable, contemptible heathen, who are this minute standing on their heads eight thousand miles beneath us, and 10,000 miles beneath our contempt, (though they pay us back that coin with interest, and you see they have reason,)—those pig-eyed, pole-climbing, tub-spinning Japanese, and those pig-tailed, rat-eating Chinamen, whom some of us democrats are not even willing to have come over here to do our dirty workfor us, at four dollars per month—even *they* are our masters and superiors in agriculture. I am not fabling at all. The facts are so, and I invite you to verify them at your leisure. I should not like to acknowledge that in China. Where is boasting then? It is excluded. These things ought to make a North Carolinian blush clear down into his boots. And our friends from over the border, both ways, may laudably and wholesomely try an experiment in that same direction.

But thus far we have only considered the subject *compara-*

tively, "letting our observation, with extensive view, survey mankind from China to Pern," and we do not find that aspect of it lovely. Let us look at it in its intrinsicality. I wish I could photograph and hang up before you here an average specimen of some hundreds of farms which have passed under my observation during the last few weeks—in Davidson, Wilkes, Rockingham, Surry, Wake, Harnett—every where you may find them. But let us go out (you will not have far to go) and take a bird's eye view of one of them, as from a balloon, or the window of a rail-car. You see the house over there on the slope of the hill, "standing" like "the abomination of desolation," "where it ought not," with a single grand old spreading oak, (to show what a noble grove there might have been,) but unfortunately on the wrong side of the house, evidently an accident, inadvertently left by the heedless woodman who did not mean to "spare that tree;" palings half decayed and broken away, gate hingeless and latchless, held up by an old hoop; house sway-backed like an old mill horse, chimneys of the composite order of architecture, like that of Paul's foolish builder, "wood, hay, stubble," with stones and mud, one of them leaning affectionately against the gable, the other leaning off, as if taking a reluctant farewell of the roof; (we will not go in, being uninvited; you can recall the inside, you have been there many a time); the stable, a few rods further *up the hill* to the southwest, i. e., to windward, for the sake of the odors; no shutters to the doors, stock barred in with long poles, and, (if you happen here in winter,) both the stable and lot a mire, of mud and manure, lying about in soggy heaps, like that which Gulliver tried to jump over and couldn't, and a dark brown rill trickling off, down towards the spring probably,—certainly towards the sea, which it will reach in due time; the pious farmer thus casting his bread upon the waters, and in a sense not contemplated by the wise man, however, but with the certainty that it will be "many days" before it "returns," (unless he goes down to Wilmington or Newbern to eat oysters.) The farm is enclosed by a mean-

dering line of thicket—sassafras, briars, vines, &c.—nature abhors a straight line as well as a vacuum they tell us, and so does our farmer, and therefore he adopts the line of beauty for his fence-row, which "wringles in and wringles out," like that famous snake we read about; this hedgerow serving the double purpose of keeping together the fragments of decayed rails, and of concealing the real condition of the ancestral fence from pragmatical cows and pigs; and you see also several subdivisionary ornamental hedgerows along the branches, consisting of large trees, with elder, swamp dogwood, sycamore, briars, &c. But what does this farm produce? You can see for yourself even at this enchanting distance—firstly, gullies and broomsedge, waving in the autumn wind, *flava ceres;* secondarily, nubbins and sassafras. There used to be an orchard over in that sedgy briar patch, but the envious winds, bugs and time have made sad havoc in it, and only a few nondescripts, unknown to Westbrooks or Wilder, probably winterjohns or vinegar apples, are left in their place to tell where the orchard had been; philosophical farmer thinks the times degenerate and the climate has changed, and does not produce apples as it did, *se puero.* There used to be a narrow strip of meadow also, down in that bottom, but it is now buried some ten feet deep with red mud and sand from those gullies, and now produce only a ribbon of bullrushes fringed by willows, alders, and the inevitable briar. We will not stay to review the stock, you can see that any market day in the streets of Raleigh,—(there are none of them here to day.) They are not described in Dadd, nor Allen, nor Youatt, nor in any of the herdbooks; they are the old original North Carolina breed, lineally descended from Noah's ark. Now whose farm is that? Which of you claims it? Don't all of you speak at once. No. Nobody wants it. As I expected, the owner of that farm is not here. He don't attend fairs, neither State fairs, nor County fairs. Perhaps he has moved west. I hope he has, or will, or else that he will come out next year to Mr. Battle's menagerie.

Now perhaps some one thinks the colors are laid on a little too strong in this picture? But there is not one of you that has not a dozen like it in your eye now. You need not go five miles from this capital, nor from any where else, to find the counterpart. Remember, I did not propose to portray for you an average North Carolina farm, (though I should not like to be put upon the stand on that point—fear we should not be able to soften the lines very much), but to paint you a sample of hundreds which I have lately seen, and which any one may see who travels at all. Of course we have many good farms in North Carolina, some in nearly every County, and *a few* prime farms, which would do no discredit to the agriculture of any State in the Union, and a *very few*, perhaps half a dozen in the State, which might be called, in the general sense, *model farms*—worthy of all imitation. And in quite a number of instances there has been a most marked improvement within the past few years, (I am glad to note it) the introduction of new crops, new implements and new modes of tillage; "but what are they among so many?" The fact remains, and every one of us knows it and feels it, that the general condition of our agriculture is nothing less than deplorable; and when we consider not alone results, but the present existence and continued activity of the causes which have produced them, the prospect is calculated to excite any thing but pleasing reflections. Take a few general considerations. Out of one-fifth of the area of the State estimated to have been cleared prior 1860—some 6,000,000 acres probably—perhaps one-third was then in the condition described by the term *old fields*. *Now*, I estimate the proportional amount of land thrown out of cultivation to be not less than one-half of the cleared surface. Here are, then, 3,000,000 acres of the best land in the State, reduced to a condition so much worse than we found it, covered with "the forests primeval," that the damage will almost, if not quite, counterbalance the increase of value of the other half from its subjection to cultivation. Very nearly one-half of this is annually subjected

to corn culture, a most exhaustive system, precluding any rational rotation, and the soil, instead of increasing in value and productive power annually, is valuable precisely in the inverse ratio of the time it has been cultivated. Now is not that a glorious record for the "most enlightened people on the face of the earth?" What wonder if, in the strong language of the old seer, "the land mourns and every herb of the field withers for the *folly* of them that dwell therein?" or that it has been now for a long time "spuing out its inhabitants." Placed here, in the high noon of human progress, in this Eden of the later world, "to dress and to keep it," what have we to show for the stewardship of a full orbed century and more? The banished Indian of the forest rises up in judgment to condemn us. He left the land no worse for his occupation of it—no barrenness and desolation in his path. The gully and the broomsedge are institutions peculiar to an *advanced* civilization.

Now I know very well that it is customary as well as far more agreeable, (and it is *that* because it is this,) besides being better adapted to the ear of the outsider and the foreigner, to take a rose-colored view of the situation. But let me remind you that the facts which I bring to your attention are meant entirely for home consumption, and not for the foreign market at all. And then to ignore or to shut your eyes in the face of an unwelcome fact, does not abolish it or change it in any manner. We tried that experiment on a large scale, on a late memorable occasion, and it did not avail us; it did not postpone or avert the catastrophe, which for a long time loomed before us in all its terribleness; neither will it serve us any such purpose now. It is wiser to look disagreeable truths in the face and go to meet them. I promised to bring you to the confessional and to put you on the stool of repentance. Who is there here that disapproves such salutary discipline? "If any, speak, for him have I offended." Who is here such an old fogy that does not see the necessity of an utter revolution of our whole agricultural system? "If any, speak, for him

have I offended." And there may be some who set down a large part of what is objectionable in the present state of our agriculture to the account of the war. And that is a very short, convenient and comfortable way of putting it. But after all reasonable abatements and extenuations are made for the destructions and perturbations entailed by that calamitous event, which fell, of course, most heavily upon the agricultural interests of the country, you will find the essential and characteristic features of the case unaltered—only details and results are affected, principles not at all. And it is to the principles, the vicious principles and methods of our agricultural procedure that I wish especially to call your attention, in order that we may speedily set about the correction of them. You may go back, if you choose, to the census of 1860, and your case is not materially altered. Regarded from any point of view you will, three facts stand out conspicuous and unmistakable from the record, as the exponent, expression and measure of the character, condition and tendency of our agricultural system. Of these the first and most important is that which I have endeavored to set prominently before you, to wit: the impoverishment of the soil to such an extent that after throwing out of cultivation one-half of the *improved* land, the remaining (and of course the better) half yields us less than twelve bushels of corn per acre and less than 7, probably less than 6, bushels of wheat, (and of other crops in the same proportion), until every one realizes that we have reached the end of that road and must "right about face." The other two facts which I have only time to categorize here for your meditation, are, first, that there is among our farmers a greater waste of labor, by the injudicious and uneconomical application of it, than any where else in the world; and second, that in proportion to their advantages, they enjoy less of the comforts and conveniences of life, (I say not luxuries and elegances,) than any other civilized people on the globe. Such, then, being the condition of affairs, it is obviously a matter of urgent and paramount importance to ascertain and clearly

appreciate the causes thereof in order to their removal or modification.

Let us then consider (very briefly it must be,) the vices and hindrances of agriculture in North Carolina, its advantages and encouragements, and the means of its improvement and reformation.

Probably most of you will agree with me in placing at the head of the list of defects,

THE CULTIVATION OF TOO MUCH LAND.

This is the crying evil, palpable to every one, acknowledged by all, and yet universally persisted in. The efforts of the farmer are spread over so large a surface that they are frittered away and rendered ineffectual. The object of competition among neighboring farmers is, not the production of the largest result on the smallest surface, and with least outlay of labor and capital, but the cultivation of the greatest acreage. Thus one hundred bushels of corn, for example, are laboriously produced upon ten acres, at an expense, in the deterioration of the soil alone, of ten to twenty per cent of the profits of the crop; while under a wiser system, the same result would be obtained from two acres with one-fourth of the labor, and the soil improved by the process. This is one source of the enormous waste of labor already referred to. The labor expended on an acre of corn, for example, produces here twelve dollars, in Massachusetts or New Hampshire, fifty-five dollars; and if you substitute wheat, the figures are fifteen and forty-five; and so of other crops. Now these proportions ought to be reversed, with our advantage of soil and climate. Our farmers have not even yet learned, although they have had some capital tuition on the subject lately, that the prime factor or in the production of a crop in our country is not land, but labor.

And this excessive acreage in our cropping is doubly an evil because it is also mainly chargeable with another, which deserves to be set down as the second great vice of our system, viz:

IMPERFECT TILLAGE.

This also is patent to everybody, and yet also universally prevalent. Our soils are neither properly plowed nor properly drained. The ordinary depth of cultivation is three to five inches, only the best farmers, one here and there, going beyond that; and usually the soil is not *pulverized* even to that depth. Now when these figures are trebled, and a rational system of under-drainage (we have none now) is introduced, New England will be left so far behind as never to be thought of again in comparison. These processes are the only means by which access can be given to the atmosphere, the rain and the frost, charged with those chemical and mechanical forces and fertilizing ingredients which are absolutely necessary to maintain the soil in proper condition for the elaboration of plant food. These are also the only means of averting the disastrous effects, both of drought and of excessive moisture, incidents so common to our irregular climate, and from both of which our crops have suffered so severely for three or four years past; the corn crop of this year being more than forty per cent below the average, and in some of the western and northern Counties not less than sixty. A proper system of tillage would have prevented the larger part of this heavy loss, which cannot be less than seven or eight millions of bushels. It may seem to some paradoxical to ascribe so opposite effects to the same cause. Nevertheless, it is demonstrably so. The only part of the State where I have seen the forests seriously affected by the late drought is what is known as The Meadows, in Rockingham County, a high and fertile tract of twenty-five or thirty miles, but so flat and of so tenacious a subsoil that in ordinary seasons it is hardly ever free from standing water. These soils also suffered most from the excessive rains of spring; and here are some of the poorest crops to be found in the State, though on the best lands. Precisely similar facts are reported by the Agricultural Department at Washington, from

the whole Atlantic slope and the Mississippi basin to the Rocky Mountains. It is true that a large part of our soils are of so favorable a texture and situation that they do not need underdraining, but most of our best lands, the alluvions and tenacious uplands, will never put forth half their strength until subjected to this process, as well as to a deeper and more thorough mechanical division.

I have said that this defective tillage is largely due to the *first* great error, the attempt to cultivate too much land: it is also due, in no small measure, to what I shall set down, for conveniency, as the third vice of our agriculture, viz:

THE USE OF INFERIOR IMPLEMENTS.

Some of the plows, for example, in common use in the interior and western Counties are of so primitive a type as to merit a place in the Archæcological Hall of the Agricultural Department at Washington, along with the forked stick used by the aborigines and the Polynesians. The last decade or two have witnessed an immense advance in this branch of agriculture, both in the way of invention and of improvement. The mathematical principles of the plow, for example, first clearly conceived and distinctly enunciated by Thomas Jefferson, have only lately been worked out practically by Gov. Holbrook, Collins and others, in the production of an implement as much superior to our common bull-tongue and shovel, as the rail car is to the old time road wagon. And then there are besides these, whole classes of implements, many of them of recent invention, such as seed planters, cultivators, pulverizers, gang plows, &c., which are entirely unknown to the mass of our farmers; to say nothing of those more important inventions, the mower, reaper, &c., which are revolutionizing the whole business of agriculture, the world over. I do not think this Agricultural Society can charge itself with a more important duty, or a more valuable service to the State than the examination, trial and introduction to general use among us, of these

and such recent improvements; so far as they shall be found adapted or adaptable to our circumstances.

The next great defect to which I shall call your attention, and which, in point of importance, deserves to have occupied the third place in this category, if not indeed the first, is

THE WANT OF MANURES.

This is too large a subject to go into, even summarily, on this occasion. One or two observations in passing must suffice. Our system of agriculture consists in wresting from the soil whatever it can be tortured into yielding, and returning not one penny's worth. Now the refuse from any crop is sufficient, if returned to the soil in proper condition, not only to maintain its fertility, but to improve it continually. But in the case of the North Carolina farmer, its well earned wages "are kept back by fraud," until "his land cries against him and the furrows likewise thereof complain." In a word, this whole subject, of the saving, manipulation, manufacture, purchase and application of fertilizers, (including green manures,) which lies at the very basis of all intelligent and remunerative modern agriculture, is a sealed book to the mass of our farmers. I verily believe that the annual waste of manure alone, in North Carolina, is sufficient in amount of money's worth to pay our public debt in five years. I call the attention, the immediate and earnest attention of this Society and of all others in the State to this most important subject.

Another matter in which our farming is wofully deficient is a proper rotation of crops, in which I include also their diversification and specialization.

The range of our cropping is entirely too narrow, especially so, in view of the unequaled possibilities open to us in this direction. For example, corn is our great crop. Nearly half our land, and that the best half, and more than half our labor are devoted to this crop alone. North Carolina is one of the great corn producing States of the Union. The contest among

farmers has been, ever since I can recollect, to have the longest corn heap, the biggest "shucking," and the tallest cribs and most of them. Now this is a very expensive crop, both in land and labor. And our people have worn out both themselves and their land in its cultivation. Now there is good reason why Illinois, Indiana and the great prairie States of the northwest should make corn their great staple, and should construct their whole agricultural fabric on this basis. They can't do otherwise. You know they make corn so cheap out there, sometimes, that it is burned for fuel instead of coal. But we can't do that. We are circumstanced very differently. And we have almost the whole range of the agricultural products of the continent from which to select. No part of the continent, for example, is better adapted to sheep, cattle and dairy farming, and fruit culture than our western Counties. And there are good reasons (familiar to many of you) for believing that nearly the whole State is peculiarly adapted to vine culture. And to mention smaller, but still important items, North Carolina appears almost at the head of the census list in the production of honey. And yet there is a great deal more honey *in the woods* in our western Counties than *in hives*. The product ought to be centupled, and could be so at a very small expense. And so of cranberries in our eastern swamps, and of many other crops, involving little outlay, but adding immensely to the yearly aggregate of our production. And yet it is corn, corn, corn, from Currituck to Cherokee. It is like a monomania. I do not believe in corn-doctors generally, but if one should come along equal to this case, he ought to have the Society's grand medal. So much briefly for the diversification of crops according to the suggestions and adaptations of nature and our peculiar circumstances.

By specialization of crops, or special cropping is meant the cultivation solely or chiefly, in given circumstances of climate, soil, locality and range of possible products, of those crops which are most remunerative in the existing state of markets,

transportation and other limiting conditions. For example, corn is very properly, almost necessarily, the special crop in Hyde County; but it is very absurdly so in Wilkes, Buncombe, or other interior Counties remote from market. And yet you have often seen it heaped up in such regions from year to year for five to ten years, without reference to demand or use.

But in remarking on the excessive narrowness of the range of our system of farming, reference was had primarily to that aspect of it which involves necessarily the absence of a judicious succession of crops. The fact already cited, that the corn crop annually occupied nearly fifty per cent. of the surface and more than that of the value of the cultivated land of the State, sufficiently evinces the absolutely ruinous nature of our agricultural procedure. Any rational alternation is excluded. The rotation is corn and cotton, corn and tobacco, corn and wheat; or at best, it is but a triangular rotation, consisting of a succession of three of these crops; and the necessary result is before us and all around us, utter exhaustion. In Europe, among the ancient Romans and in those parts of our own country where agriculture has made any progress, no man would call himself a farmer who had not, as one term of his rotation, clover, roots, peas, or some other green crop, cultivated with special reference to the improvement of the land. Not only is this not done among us, but as we have seen, no care is taken even to return to the soil the refuse of the ordinary crops. There will be no agriculture in North Catolina worthy of the name until a radical change is made right here.

And this brings me to mention, (and I can not do more than mention it here,) another evil of our system, so closely connected with the last, as, in one aspect, to be in fact a part of it, to-wit:

THE DEFICIENCY OF STOCK.

When the last named error shall have been corrected by the introduction of green and root crops, the advantage and

necessity of at least trebling the number of animals on our farms will be apparent.

And this will naturally suggest another defect, viz:

THE INFERIOR CHARACTER OF OUR STOCK.

The business of stock-breeding and the improvement of inferior kinds has yet to be inaugurated among us. It can not be done too soon. And I know of no more promising field of enterprise for an active and intelligent young farmer than this. I commend the subject also to the early attention of this Society.

Such are some of the defects—the more obvious ones—of our farming in North Carolina, palpable to the observation of all of you; and others will no doubt have occurred to your thoughts as we have passed along. But this grossly defective mode of conducting the great business of the State argues widely prevalent defects elsewhere, defects of another class, personal defects in the farmer. Now, I am aware that this is a tender part of the subject, and perhaps it were wiser to have passed it altogether. At any rate it behooves me to tread lightly, especially since the medicine man, before referred to, has not yet extended his travels into these parts. I will limit myself to a brief word on but three points,

The want of a habit of attention, observation and calculation; the want of industry; and the want of organization and co-operation.

The first point is illustrated by all those faulty practices which we have just been considering, but by none better than the production of crops not demanded by the available market and the failure to produce those which are in demand and for which there are peculiar facilities. In nine cases out of ten the farmer does not know what a given product has cost him, and whether he is cheating the farm or the farm him; and probably he will tell you, as one of them, ordinarily intelligent, told me the other day, on inquiring the cost of production per bushel of a certain crop, that it did not cost him any-

thing, he made it himself. And there is a very recent and conspicuous instance of the general absence of a habit of observation among farmers, in their failure either to give their summer crops such depth of tillage and drainage as to render them independent of the season, or, failing that, to time their planting so that the critical period, the earing of corn for example, shall immediately precede, or shall succeed the season of drought, which generally happens about the same time of the year, thus furnishing the farmer an opportunity to mitigate if not entirely avert its disastrous effects. As to the second point, the charge of want of industry certainly does not lie against the farmers of North Carolina as a class; on the contrary they work harder, for the remuneration they get, than any other people I know. But there is a large number of men calling themselves farmers, who do not sufficiently appreciate the value of time, who spend the whole day, for example, at an election precinct, or in an errand to the village or the store, and who consider every rainy day as another Sabbath providentially added to their rest time, according to the old adage among them, "the more rain the more rest," &c., having never troubled themselves with the observation that the rains, which the benignant skies send us in this latitude, occupy just two months in falling, a loss outright of one-sixth of their year.

As to the other point, I think it will not be denied that there is no class of men who have less of the habit or faculty of organization than farmers, and there are none who need it more or suffer so much loss for the want of it. Although they constitute the immense majority of the population, and upon the results of their labor are based all the operations of all other classes and of government itself, yet they get less recognition, less legislative protection and assistance than any other interest in the country, and become oftener the easy prey of merciless speculation and monopoly, and fall more helplessly under the oppressive exactions, the insatiable, soulless selfishness of rail road corporations. You all know how lately the

profits of almost the entire cotton crop of the State was fraudulently wrested from those who had so hardly earned it, and how two years ago, for want of proper legal protection, they were swindled out of nearly a million dollars for worthless fertilizers. This want of organization, and consequently of communication also retards most seriously the introduction of agricultural improvements and reforms. I hope this and other young and vigorous agricultural societies represented here to-day, will soon change all that.

But, as will probably have occurred to many of you already, all these defects and wants may be gathered up and summarily comprehended in one word,

THE WANT OF EDUCATION—

the want of a knowledge of the principles which underlie the *science*, and control all successful *practice* of the art, of agriculture. With the multitude of them it is mere matter of habit, routine, prescription, and there is, consequently, with too many of them little thought, aspiration, or effort towards anything higher or better. You might have seen in very many sections of the State, any time during the last hundred years the same cultivation of the same crops, on the same soil, with the same implements as you will see to-day, and you will get no other reason for it than that it has always been so. The agricultural world has made many a revolution in that period, but they wot not of it. Of course I speak not now of that comparatively small number of intelligent, educated farmers and planters, so largely represented here to-day and on all similar occasions, who are foremost in every good work of this kind and ever on the alert to discover and quick to take advantage of and put to the test every improvement in methods or implements. With them it will rest chiefly to inaugurate the necessary reforms in our system and by their example to promote their general adoption.

Such are the principal prevalent vices and defects in the art

of agriculture as generally practiced among us. What are its hindrances and drawbacks? They are certainly neither few nor small; I can only summarize in the briefest manner, a few of the more prominent of them. As first and greatest, undoubtedly we must place the enormous efflux of population, capital and labor, which has so long drained the state of its strength and of the accumulations of its enterprise, to fill up, develop and enrich the younger States of the West. No other State has suffered so great loss from this cause, and it is not possible to estimate the consequent retardation of the development of our resources.

The next great hindrance, and one chief cause of the former and of all our difficulties, is and has been

THE WANT OF CHEAP AND READY TRANSPORTATION TO MARKET.

Under this head I include the want of ordinary roads and bridges as well as of canals and rail roads. We seem to have a particular affection and veneration for bad roads. Going from here to Hillsboro' next winter, for example, you will stick in the same mudholes that arrested the progress of the red coats of King George and of the revolutionary forefathers. And if Providence had not sent over that enterprising engineer, Cornwallis, to pave a part of the main street of Hillsboro', I do not think the chimney tops of that venerable town would be above ground to-day. I do not wish to be invidious—should like to mention a few hundred similar instances in point, if time permitted. And in the way of bridges we are equally conservative. I do not think a single bridge interrupts the navigation of the Yadkin river from the mountains to the State line, although there is no law of Congress forbidding it. The Dan and the Catawba each boast a single bridge in a reach of more than a hundred miles. Of course the expense of transportation is trebled by such a state of roads as is common among us. Some one has said that roads are an exponent of the civilization of a people. And some enter-

prising geographer would no doubt long ago have put us down as less than half civilized, but for the fact that he was not enterprising enough to get here over such roads. And as for the canals and slack water navigation, you know in what utter failure and disappointment, (besides the loss of millions in money to the State,) ended all the efforts and struggles of Murphy, Browne, Caldwell, and their noble compatriots of a former generation, mainly through incompetent and dishonest engineering. But we have about a thousand miles of rail road, which, although not as judiciously located as could be desired, ought to give our farmers tolerable means of getting to market. But the continuance of the exhaustive and ruinous process of depletion, known as "moving west," sufficiently indicates that the fact is otherwise, and that Jno. M. Morehead, and his patriotic co-heroes of the rail road system have been destined, thus far at least, to almost as complete failure and disappointment as their noble predecessors of the previous generation. And, my friends, so long as we continue, here in Raleigh and in Wilmington, for example, to pay one dollar and fifty cents a bushel for Illinois and West Tennessee corn, while tens of thousands of bushels are begging sale all along the fat valley of the Yadkin and the flanks of the Blue Ridge, within thirty and forty miles of your rail roads, at fifty cents a bushel, so long will your agriculture languish and your population move west. So long as we continue here in Raleigh, and all along the seaboard and the rail road lines, to pay fifty to sixty cents a pound for Goshen butter from New York, while the mountains of our own State are teeming with a better article at twenty cents a pound; so long as we pay five to ten dollars a barrel for New York and Vermont apples and potatoes, while there are thousands of barrels of both, better than New York ever saw all along the Blue Ridge and beyond, within forty to sixty miles of your rail road, at one dollar and fifty cents to two dollars a barrel; so long as we are obliged, here in Raleigh, to send to New York city to get a beef-steak from Watauga or Mitchell; so long as the whole produce of these and other

Blue Ridge Counties—apples, potatoes, butter, cabbages, &c., continues to be *wagoned* one hundred miles right across the track of your rail roads to Charlotte and South Carolina; and so long as the mountain farmers continue to make fence-rails of cabinet woods, almost within sound of your steam whistle, while your furniture is made of material from the middle of the continent and from the forests of South America; and so long as the farmer must pay three cents per ton per mile for freight of lime, plaster and other essential manures, or allow his lands to go to waste as hitherto; and so long as a thousand other absurdities and impositions of this sorr continue, so long will our people continue to treat North Carolina as "a good place to come from." And so long as the farmer fails to know his power and his rights, and to assert the one and maintain the other, so long must he "bow his shoulder to bear and become a servant unto tribute;" so long will he be the pack-horse of whoever chooses to get astraddle of him. Now I want it observed that I have not undertaken to locate, or to distribute the blame which must attach somewhere for this long continued, disastrous and disgraceful state of things—except that part of it which falls properly to the share of the farmer for his supineness, apathy and cowardice in failing to enforce his just claims, and allowing himself to be "thus taught with thorns and briars," and to abandon his native soil and go sniveling out west. Farmers of North Carolina, here rises a Chinese wall right across the path of your progress. You must sap and mine that before you can go forward one inch. But I must pass on.

I can only mention as a third serious drawback to the progress and profit of agriculture

THE GREAT EXPENSE OF OUR FENCES.

The annual cost to the State in labor and the destruction of timber, of this item alone, amounts to an incredible aggregate, and I invite this Society to the investigation of this whole

subject of fences and hedges. It is only a question of time when it shall be taken up, and the sooner it is done the better. One other point claims attention here, as a very important cause of the wretched state of agriculture among us, and that is,

THE LOW ESTIMATION IN WHICH THE BUSINESS OF FARMING IS HELD

I need not tell you that there is an almost universal disposition among our people to crowd into other avocations and to regard farming as a last resort. Our young men are abandoning the farm almost en masse, and pressing into clerkships, into rail road, express and insurance agencies; into law, medicine,—any thing and every thing but agriculture. And the farmer himself, as well as all other classes, recognizes and encourages this state of things. When his boys go to college and get a little education, often very little indeed, he considers his own vocation entirely too narrow a field for the range of their genius and the breadth of their acquirements, and assigns one to the law, another to medicine, and so on, leaving only the dullard and the sluggard, who can't learn or won't, for the farm. Fit for nothing else is fit for the farm, is the motto. Now this state of things is both a cause and a consequence of the condition of our agriculture, and the two evils powerfully tend to perpetuate one another. And yet there could not be a greater error or misfortune than the existence and continuance of this false estimate and these false relations of things.

But it is time we should turn our attention to some reasons why these things should not be so, and the means by which the desired changes are to be effected.

First and chief among these may be placed our

ADVANTAGES OF SOIL AND CLIMATE.

If you turn the State of North Carolina on the map, so that the length of it lies north and south, you will see that it would

extend from South Carolina to New York. Now, on account of the great elevation of the western end of the State, our climate has just about the range which that geograpical change would give us. And the variety of our soils is equally remarkable, extending from the combustible, peaty accumulations of Hyde to the drift beds of Buncombe. And these two circumstances together, give us a range of vegetable products, and of agricultural occupation, greater than is to be found in any territory of the same extent on the continent. As to the character of these soils, it is to be admitted that we have a very large extent of poor land in the State, but in so large a territory there is rich land enough to cover the whole State of Massachusetts, and nearly all our poor lands are very capacious and retentive of improvement, much more so than the drift soils of New England. But it is apt to be supposed that, the range of products being so great, their *quality* is necessarily inferior. It is not so, however. There is no better rice than that grown on the Cape Fear. And no better wheat grows any where than in some of our midland and piedmont Counties. The superintendent of the largest steam bakery in New York City informed me some years ago that he could not produce his best qualities of bread at all without North Carolina flour, and that he always kept it on hand to mix with his New York and western brands. And I would undertake to match the best samples of wheat in the Agricultural Office at Washington, obtained from the World's Fair at Paris, and brought from all parts of Europe, with just as good from the Chestnut Ridge in Surry, Cherry Mountain in Rutherford, and a dozen other localities. You know that in North Carolina have originated several of the best American grapes; chief among these, the Catawba, is still growing wild in the Brushy Mountains. Here also Westbrooks obtained the apples which took the premium at the National Pomological Fair a few years ago. But these examples must suffice.

Another most important advantage of which, however, we have as yet failed to avail ourselves to any extent, is our

PROXIMITY TO MARKET.

With our system of transportation properly organized, *unified and directed*, we ought to be able to throw our wheat and corn crops, for example, into the great channel of the world's commerce, not only three to four weeks in advance of the great wheat and corn States of the upper Mississippi, but at one-fourth of the cost. And so of the fat cattle from our mountain pastures, in competition with those from Texas, and of many other articles.

And then in our vast manufacturing and mining resources there exists the means of creating at the door of the producer, a demand for a hundred fold the present marketable surplus of the farm products of the State. There is no agriculture in the world like that of England. And its development is due to and has only kept pace with the grand march of her manufactures.

The last advantage I shall speak of is

THE ABUNDANT MEANS FOR THE IMPROVEMENT OF THE SOIL.

Although the fertility of our soils must be restored and maintained chiefly by the introduction of a better system of culture and rotation, involving green crops and fat cattle, yet, as auxiliary to these, the immense deposits of marl which spread over all our eastern Counties, from the Peedee to the Roanoke, are of untold value. These great beds of calcareous, phosphatic and alkaline manures seem to have been accumulated here and reserved by a benignant Providence, with special reference to our present need. They are naturally distributed over nearly one-third of the State, and our rail roads and rivers ought to extend the distribution over another third.

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And bad as this condition is, with such *advantages*, we ought at once to start forward with a bound.

But how is this reconstruction to be effected, and these advantages to be made available in the realization of the grand possibilities which they suggest?

We have seen that the great evil, the root and source of all other evils, is the almost universally prevalent ignorance of the principles of agriculture; which has gradually been developed almost in a generation, into a grand science, a science of sciences; into a high art, an art of arts. The man who farms now successfully, must farm intelligently. Agriculture may be defined, comprehensively, as the modification and multiplication of the natural products of the earth for the purposes of civilized men. To do this successfully, it is, of course, necessary to know something of the laws and forces of nature which control and limit all its processes. These have been ascertained by experience, observation and study, and embodied in science. The farmer should know something of the origin, texture and elemental composition of his soils, and their relation to manures, and the relation of both to his crops. He must also have some acquaintance with the nature and processes of plant growth, and with the conditions under which, the means by which and the limitations within which these may be changed and modified. And so also he must not be ignorant of those principles of zoology, which will enable him to develop the desirable qualities of his domestic animals, and combat his enemies of the insect world. Farming, in a word, is no longer the simple and rude process of a half century ago, even. It has advanced and is advancing with rapid strides, and has attracted to its service the highest genius, has subsidized the resources of chemistry, botany and zoology, and called into requisition the highest inventive ingenuity. The North Carolina farmer who produces wheat must go into competition with the best modern machinery, directed by the highest skill, employed on the teeming fields of California and the fertile praries of the northwest. The grower of cotton here must enter the lists

with English capital and French science, and with the inexhaustible fertility of the Mississippi Delta. You can multiply examples at your leisure. These are sufficient to show you that the modern farmer must be intelligent and wide awake. And remember, it is not enough that a *few* men should be abreast of this agricultural progress, officers of agricultural societies, editors of newspapers and agricultural journals, and the large farmer, here and there, who has or may have the advantage of education, books, leisure, travel; but the *masses* of our farmers must be reached, encouraged, instructed. Ninety-five per cent. of the farms of North Carolina are less than five hundred acres in extent, and sixty-seven per cent. of them, less than one hundred. (And I hope in ten years to see the number of this latter class of farms doubled, and ultimately every citizen of the State, new and old, elevated to the dignity and security of land ownership.) Now it is only by the improvement and elevation of the intelligence and agricultural practice of these *small farmers*, so that their farming, as well as themselves, shall be "their country's pride," that general prosperity will be restored and settled on an enduring basis. Can this be done, do you ask? It can and will. Men are every where ready, and many of them *eager* to learn. They are aware that something is wrong and they are willing to know what, and to change it, if you show them a better way. It is your mission to do that. It is the mission and duty of every intelligent North Carolinian. You have begun here to-day, and you have begun right and well. There is no better school, none so good as the Agricultural Society, with its annual exhibitions, competitions, stimulations, encouragements and manifold instructions. There is no learning like that which comes by seeing. The observant farmer learns here what he never could have learned at home; and learns it in an hour and effectually. He finds that his neighbor has better implements, or better stock than he, and is pursuing better methods and making more money than he, and is dissatisfied with himself; he will make a better showing next year. These reunions will

also bring the farmers from all parts of the State into association, and make them realize the community of their interests, and their strength also, and thus will lead to that cooperation and organization which we have seen to be so necessary to inaugurate those larger reforms which affect the general agricultural interests of the whole State. The operations and influence of this Society and of the regional and County Societies, should be extended into every corner of the State, carrying with them and diffusing every where the glow of a healthful, stimulating and contagious enthusiasm. The Agricultural College also, with a model farm attached, ought to contribute much to the increase and general diffusion of agricultural knowledge.

And lastly, the elements of agriculture should be taught in the public schools. Let the farmers demand this and they will get it.

In conclusion, let me say to the farmers of North Carolina that I hope the day is not distant when agriculture shall resume its true place of dignity and importance among us, as the noblest of all arts; an occupation from which the country will delight to call its leaders, statesmen and heroes, as in the first days of the republic; as in the foremost nation of the world to-day; and as among the greatest people of antiquity. Look not regretfully towards the past. The future is brighter than ever that was. Remember, "There are no birds in last year's nest." The past is gone—is God's. The present is yours. To improve that is to possess the future.